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State of South Carolina Certified Public Manager Program

Privatizing Sign Production to Create Efficiency

Submitted By:

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Date:

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Introduction

The South Carolina Department of Transportation's vision can be summed up in this brief statement, "The SCDOT is striving to provide safe, reliable surface transportation systems and infrastructure and effective support for a healthy South Carolina economy through smart stewardship of all available resources."

The goal of the South Carolina Department of transportation is to provide adequate, safe, and efficient transportation services for the movement of people and goods.

The vision and goals the South Carolina Department of Transportation are directed at the over 4000 employees that build and maintain 42,621 miles of roadway throughout the state. South Carolina's state maintained roadway network system is the fourth largest in the country. Despite its size ranking, the South Carolina Department of Transportation receives one of the lowest, per mile, funding rates in the nation for maintaining and improving its roadway system.

A key component of that system is signage. There are over 700,000 signs on South Carolina's roads. Traffic signs are a ubiquitous component of our everyday driving experience. Often unnoticed, and sometimes disregarded, traffic signs quickly become a vital safety and information component of the driving experience when a motorist is in unfamiliar territory or when conditions are less than optimal.

Due to regulations and warranties, most of these signs need to be replaced every ten years. This is to assure that the signs have the proper retro-reflectivity. This property is becoming an important consideration for roadway maintenance and driver safety as the population ages and the night vision of the average driver

decreases. With the required replacement of these signs the volume of signs produced has significantly increased. Compounding the financial burden of producing the required quantity of signs is the increasing cost of material required for production. Higher retro reflectivity standards result in higher sheeting costs. Larger signs require more material. The combination of more signs, larger signs, and additional retro-reflectivity due to these new regulations has significantly impacted the overall cost of sign production for the SCDOT.

Problem Statement

At a ten year replacement cycle a minimum of 70,000 signs are needed each year. This number does not include new signs that are required. It also does not include signs that need to be replaced due to damage. Adding to the workload for the sign producers is an increase of sign requisitions as the deadline for retro-reflectivity standards approaches. Several measures have been taken to reduce the cost of supplying signs.

The most notable has been the consolidation of the three regional sign shops into one centrally located facility. Prior to 2012 sign production for the SCDOT was performed at three regional production facilities. An efficiency study several years ago identified an opportunity to improve the efficiency of sign production and delivery by consolidating sign production to the Columbia sign production facility and closing down the remaining two facilities. Additional efficiencies were realized by adopting a new delivery system. Other cost-saving strategies were implemented by reorganizing the production process, re-thinking the sign delivery process, and closely examining unnecessary spending.

Additional analysis of the concept of efficiency in sign production raised the question of privatizing sign production. Perhaps the SCDOT should not be involved with making signs. There are good arguments for this type of change. One is the abundance of private sector sign supply companies. Many sign companies could create a competitive environment, which in turn might produce a favorable cost for procuring the needed signs. Another favorable condition for looking to the private sector for signs is the corporate culture of the SCDOT. The sign production process is an industrial factory type of process. The SCDOT's policies are directed at roadway construction, maintenance workers and office workers. Sign manufacture is a factory/production work process and as such presents unique issues that are uncommon for the SCDOT.

Data Collection

To effectively compare the costs of in-house vs. privatized sign production we need to identify the types of signs produced. There is an almost infinite combination of sign types and sizes.

To make the study manageable the signs were divided in to three types as defined by manufacturing processes. These types are standard signs, hand laid signs and extruded panel signs. While the manufacturing process for these signs are different, the materials are the same or at least similar.

To develop reliable cost per sign data, workers were timed while producing the various types of signs. The time required to prepare for production and the time required reorganize after production was also measured and recorded. The costs of

sign materials from existing contracts were combined with the labor costs to determine a cost per sign.

Sign costs from the South Carolina Department of Corrections- Prison Industries (PI) are easily determined by using the costs from the existing contract.

Private sector sign costs were determined by getting informal quotes from suppliers. These costs are based on a quantity of signs typically produced in a production run for the specific type of sign. For standard signs orders of 1000 signs of one specific type were quoted, for instance 1000, 30" stop signs. Hand laid signs and Extruded panel signs were quoted for small order quantities.

Data Analysis

To determine a cost for comparison we analyzed the standard sized sign of each production process. We did this by getting price quotes from suppliers and comparing them to our manufacturing costs. To determine our manufacturing costs we used the cost for raw materials like aluminum and sheeting, labor costs, and overhead costs.

To determine the cost for raw materials we asked for quotes from suppliers or used the prices in existing contracts.

To determine the labor costs, workers were timed during each process of sign manufacturing. The cost per hour is based off of the effective rate in the Highway Maintenance Management System (HMMS) database. The effective rates capture the cost of insurances, annual leave and sick leave and retirement. The effective rates were then multiplied by 2 to account for un-captured costs. Some of these

costs could be the time headquarters personnel spend on administration, payroll, employee relations and other support functions. This also helps to account for workman's compensation, disability, and retirement costs. Additionally, the local cost of administration, receiving materials and shipping products, overhead and depreciation are included in this effective rate multiplier. While this method is not exact it should allow the findings to be on the conservative side of total costs.

One problem with analyzing sign production costs is the near infinite combinations of sizes, materials, and colors for each type of sign. While the sizes, appearance, and types are many, the costs can be accurately compared by using the cost per square foot. For this project the cost to manufacture the most common sign sizes for each sign type will be used. For standard signs the cost to manufacture a 24"X 30" speed limit sign will be used. For hand laid signs a two line destination sign that is 24" X 72" will be used. The extruded panel signs most frequently produced in house are 5' X 8 1/2'. These three signs will provide a good measure of the square foot cost to produce each sign type.

Shipping and Handling

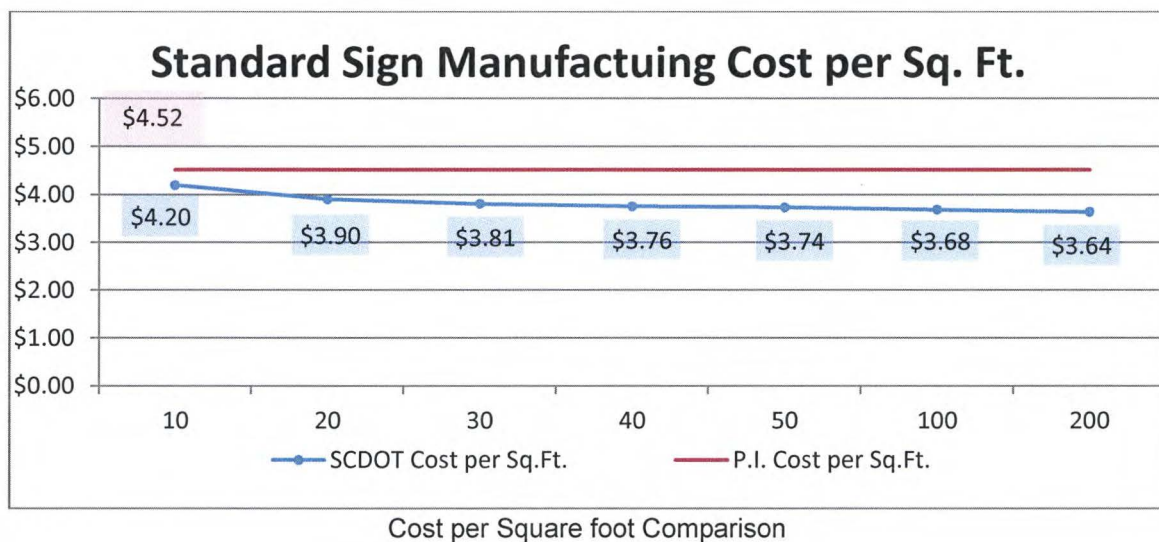
Signs that are purchased from Prison Industries are delivered to the sign shop where they are bar coded and packaged for each county's order and delivered to the supply depot for delivery. The supply depot makes regularly scheduled deliveries to each county maintenance office once every two weeks. For comparison purposes delivery is not considered since signs manufactured in house, purchased from the prison industries and purchased from outside vendors are all received, bar coded and shipped in the same manner by the sign shop.

Standard Signs

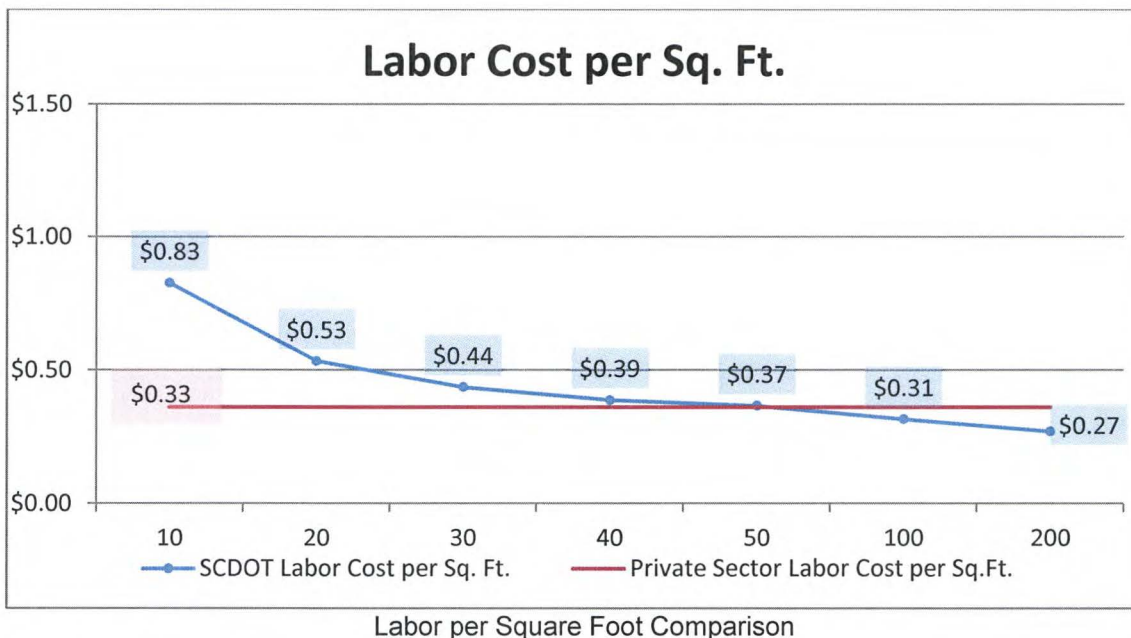
Standard signs require a two-step process. The first step is to employ a screen printer to screen text or a symbol on to the sheeting. The analysis of this process produces a production curve. This curve is based on the set up time to prepare the screen printer, the clean-up time to clean the screen and the number of pieces of sheeting produced. The second step in the standard sign production process is rolling the sheeting on to the blank, trimming the excess sheeting from the blank, covering the sign in a protective plastic sheet and applying a unique bar code to track the sign throughout its usable life. This process is called rolling & trimming. To determine the time required for each of these processes workers were timed and the times were averaged to determine an average production time per sign. The times required to set up for production and clean up after production, were also calculated. This also produced a production curve. The two production curves were combined to determine a production time per sign.

The time per sign was converted to a time per square foot. Based on the effective rate from HMMS for the employees doing this work, and using a 2 times multiplier, the labor cost per square foot was identified. To compare costs we will look at sign quantities of 10, 20, 30, 40, 50, 100 and 200 signs. These quantities are just for comparison. Stop signs and other common signs are often produced in quantities of 500 or more depending on demand. The production curves for standard signs are in Appendix A. The costs of signs produced in-house were compared to the cost of signs from outside vendors for each of the three types of signs. Vendor pricing is listed in Appendix B

A common 24" X 30" standard sign was used as an indicator of whether the SCDOT cost of sign production is less expensive than procuring signs from outside vendors. The total cost per sq. ft., as well as the labor cost per sq. ft., was calculated for signs produced by the SCDOT. Due to the time required to set up and clean up after a production run the cost per square foot produces a curve. This shows the cost per square foot decreasing as the number of signs increases. This cost was used to compare the cost of procuring finished signs from the Prison Industries. In almost all cases the cost to produce a sign in house is more economical than purchasing from the Prison Industries.



Private sector vendors gave quotes in labor cost per sq. ft. with the SCDOT supplying the material. Therefore, to compare the cost of procuring finished signs from private sector vendors to the cost of SCDOT production, a labor cost per sq. ft. was also determined. The labor cost per square foot for a standard sign produced by the SCDOT is shown in the graph below.



The South Carolina Department of Correction's Prison Industries has historically been the primary vendor for finished signs. The price they are charging for a standard 24"X30" sign is \$4.52 per square foot.

Bone Safety sign is a sign vendor that we use to refurbish old signs. They agreed to provide an informal quote. Most sign suppliers were unwilling to provide pricing as they felt it was proprietary and would only confirm the published price for small quantities of signs. The Bone Safety quote was for \$0.36 per square foot. This was for a yearly order of 10000 signs of one type. The material to make the signs would be provided by the SCDOT. The data shows that for most standard sign production runs it is more cost effective to produce the signs in house. However, the vendor's prices are competitive with the SCDOT's cost for certain quantities of standard signs.

Hand Laid Signs

Hand laid signs require several processes to produce a finished sign. The first step is to roll and trim the background sheeting on to the blank. This process is similar to

standard sign production but due to the large size of the signs the process takes longer. The next step is producing the unique text. The text must be cut out of the required vinyl and must go through a process called weeding and masking. This process removes the vinyl sheeting that is unwanted and leaves only the required text. Once this is complete a transfer tape is applied. This allows the backing to be removed and the text is then applied to the blank that had the sheeting applied to it. Each process was timed and the times were used to determine a cost per sign and a cost per sq. ft. The methods were similar to the methods used for determining standard sign production. Costs were compared by analyzing the cost to produce one sign since these signs tend to be unique and are not mass produced. The production values for hand laid signs are in Appendix A

A common 24" X 72" Hand laid sign was used to compare the SCDOT cost of sign production to the price of finished signs from the Prison Industries and from private sector vendors. The total cost per sq. ft., as well as the labor cost per sq. ft., was calculated for signs produced by the SCDOT. The process of making hand laid signs requires several processes. Each process was timed and these times, as well as material costs were used to identify a cost to produce these signs. The SCDOT cost to produce these signs is less than the informal price quoted by one of our vendors. However, one vendor's price and the SCDOT cost differ less than \$0.20 per Sq. Ft. It may be financially feasible to let a contract on this type of work to explore the potential for cost savings.



Finished Sign Costs for Hand Laid Sign

Extruded Panel Signs

With these signs as with the other sign types the manufacturing process begins by applying sheeting to the substrate. However, due to the shape and size of the substrate, special sheeting and a specialized machine is required to produce these signs. Each one foot wide extruded panel is put in to the machine and a roll of sheeting is applied to the aluminum panel. Once the sheeting is applied to the required number of channels, the channels are bolted together. Then the required text is cut, weeded, masked and applied in a manner similar to hand laid signs. As with the other sign types the times for each process were recorded and used in the cost calculation. Costs were compared by analyzing the SCDOT cost to produce one sign since these signs also tend to be unique and are not mass produced. However, the prices quoted by vendors were for orders larger than one sign. The production values for extruded panel signs are in Appendix A.

Most extruded panel signs used on South Carolina's roads are supplied and installed by contract. This is due to their large size and difficult to reach locations, mostly over interstate routes. However, smaller size signs, mostly exit signs, are sometimes produced by the SCDOT. These signs are usually 5' to 8' feet tall and 8' to 12' feet wide. For our comparison we will use an 8'X12' foot extruded panel sign. Workers were timed producing two signs, 8'X12'. Few signs of this type are produced so gathering production times on multiple signs in the time available was not possible. Based on the labor time and material used the SCDOT can produce these signs for \$8.89 per Sq. Ft. Private sector vendors quoted prices from \$8.99 to \$13.00 depending on type of aluminum used and quantity ordered.

Implementation Plan

To clearly identify vendor costs, it is recommended that a contract for private sector sign vendors be let. This process can be time consuming it could take several months to put together a contract package and receive bids. Once firm vendor prices are established a new cost comparison will be performed. Once firm prices are identified a sign production matrix will need to be developed. This matrix will identify signs that should be out sourced for production and signs that should be produced in house based on sign type, size, quantity and historical demand. The team responsible for managing the sign production for the state will need to collaborate to develop this decision matrix and test its feasibility. This should be accomplished in less than three months and at little cost once bid prices are identified. The only obstacles to overcome will be obtaining firm prices from vendors and the stake holder's ability to commit time to meet and develop process

details. The team will draw on the institutional knowledge and experience of SCDOT management and sign production personnel. The decision matrix will be required to be employed prior to producing any signs.

Evaluation Method

Once bid prices are received and the production selection matrix is employed, periodic comparisons of vendor pricing and SCDOT Sign Shop productivity can be performed. The sign shop's activities are closely monitored and recorded so it will be easy to gather the data necessary to perform these comparisons.

Summary

The consolidation of the three sign shops to the central facility has improved efficiency to be competitive with existing vendors. In fact in most cases the sign shop produces signs at a lower cost than vendor pricing. Only in situations where uncommon signs are ordered in small quantities does vendor pricing compete with in-house production costs. Flaws in this analysis could be future unexpected costs for equipment replacement and employee costs for workman's compensation claims and disability claims. Additionally, government regulations for occupational health concerns could also increase the cost to produce signs in house. Sign production is a closely documented activity. Precise quantities of materials and the labor hours required to turn these materials into finished traffic signs are closely tracked by existing software and production processes. By developing a matrix to maximize production efficiency and periodically monitoring productions costs, changes in the production cost comparison formula will be quickly identified.

Appendix A -Cost Comparisons

Hand Laid Sign Costs

Hand Laid Sign Production Costs												
Over Head												
		Plotting	Weeding/Masl Application	Total time								
Aluminum	\$2.69											
Sheeting	\$2.44											
Labor		10	12	10	32							
Sq. Ft.	12											
	Sq. Ft.	Aluminum	Sheeting	Layout & Plotting Time	Labor per Hour	Weed & Mask Time	Application Time	Labor per Hour	Labor Total	Multiplier	Cost per Sign	Cost per Sq.Ft.
1	12	\$32.28	\$29.28	0.167	20	0.2	0.167	\$16.00	\$9.21	2	\$79.98	\$6.67
Prison Industries Price												\$7.68
Private Vendor Price												\$6.83

Hand Laid Sign Production Costs

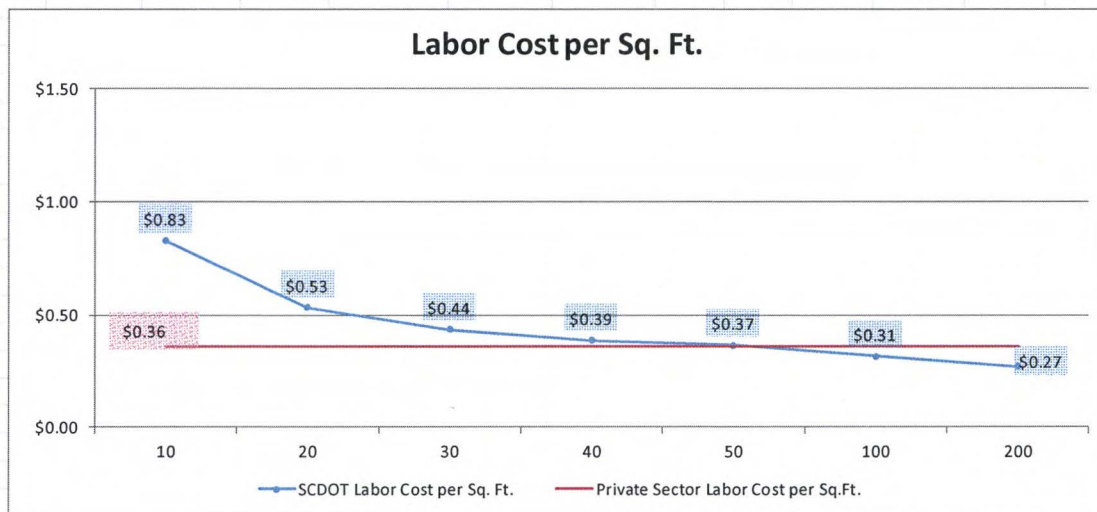
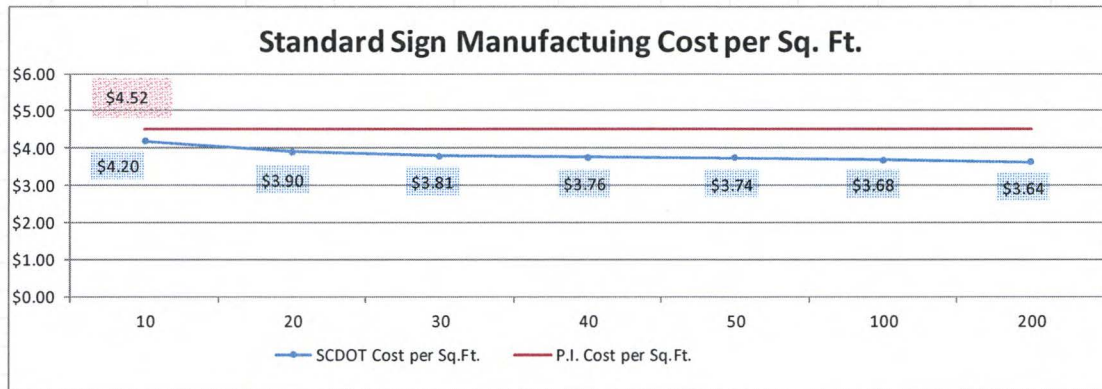
Category	Cost (\$)
SCDOT Cost	\$6.67
Prison Industries Price	\$7.68
Private Vendor Price	\$6.83

Standard Sign Costs

Standard Sign Production Costs

PI Cost	4.52 Sq.Ft.
Aluminum	2.15
Sheeting	1.22
Labor	\$16.00
Sq. Ft.	5

				Screening Time per Sign (min.)	Roll & Trim Time per Sign(min.)	Total Labor Time per Sign(hr.)	Labor	Multi- plier	SCDOT	SCDOT	SCDOT	SCDOT	P.I. Cost	Private Sector Labor
							Cost per Hour		Material Cost per Sq. Ft.	Labor Cost per Sq. Ft.		Labor Cost per Sq. Ft.		
Sq. Ft.	Aluminum	Sheeting									Sq.Ft.	Sq. Ft.	Sq.Ft.	Sq.Ft.
10	50	\$107.50	\$61.00	4.25	3.50	0.13	\$16.00	\$32.00	\$3.37	\$0.83	\$4.20	\$0.83	\$4.52	\$0.36
20	100	\$215.00	\$122.00	2.25	2.75	0.08	\$16.00	\$32.00	\$3.37	\$0.53	\$3.90	\$0.53	\$4.52	\$0.36
30	150	\$322.50	\$183.00	1.58	2.50	0.07	\$16.00	\$32.00	\$3.37	\$0.44	\$3.81	\$0.44	\$4.52	\$0.36
40	200	\$430.00	\$244.00	1.25	2.38	0.06	\$16.00	\$32.00	\$3.37	\$0.39	\$3.76	\$0.39	\$4.52	\$0.36
50	250	\$537.50	\$305.00	1.05	2.38	0.06	\$16.00	\$32.00	\$3.37	\$0.37	\$3.74	\$0.37	\$4.52	\$0.36
100	500	\$1,075.00	\$610.00	0.65	2.30	0.05	\$16.00	\$32.00	\$3.37	\$0.31	\$3.68	\$0.31	\$4.52	\$0.36
200	1000	\$2,150.00	\$1,220.00	0.45	2.08	0.04	\$16.00	\$32.00	\$3.37	\$0.27	\$3.64	\$0.27	\$4.52	\$0.36



Extruded Panel Sign Costs

Extruded Panel Sign Production					
				Mins./Sign	
Panel Preperation				30	
Sheeting Application	21.33333	seconds/foot	96	34.13	
	Material Cost	Quantity- Ln.Ft.			
Aluminum	\$6.75	96			\$648.00
Sheeting	\$1.22	96			\$117.12
Assembly				30	Total Material Cost
Text	\$1.22	32		30	\$39.04
					\$804.16
					Total Labor cost
			Total Labor	2.068889	24
					\$49.65
					Total Cost
					\$853.81
					Cost/Sq. Ft.
					\$8.89
Private sector vendor pricing					
	Price / Sq. Ft.				
Virgin					
Aluminum	\$13.00				\$1,248.00
Refurbushed					
Aluminum	\$8.99				\$863.04
	\$11.25				\$1,080.00

Appendix B – Vendor Pricing

Reflective Sheeting Pricing



SC Budget and Control Board

PROCUREMENT SERVICES

Contract 5000011911

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Validity Start 07/01/2010

Validity End 06/30/2015

Target Value \$699,955.10

FEIN 95-1492269

Bid Invitation

Contract Notes

Vendor 7000041963

Vendor Address AVERY DENNISON CORP
7542 NORTH NATCHEZ AVE
NILES IL 60714

District

E-mail yasu.masaka@averydennison.com

Telephone (847) 588-7226

Fax Number (847) 588-7227

Minority Status Not Applicable

Vendor Contacts

One Contact found.

Contact Name	Function	Phone	E-mail
MASAKA, YASU	Primary Contact	(847) 588-7226	mailto:yasu.masaka%40averydennison.com

Contract Items

8 Items found, displaying all Items.

Item Pricing			
00001	FURNISH AND DELIVER REFLECTIVE Material Group: 80149 - sign material, reflective (see 550-45 for reflective sheeting for other than signs) Agency: SC Dept of Transportation Notes for Item 00001: "FURNISH AND DELIVER REFLECTIVE SHEETING TYPE III, CLASS I" REFLECTIVE SHEETING	Unit Price: \$1.22	Total Price: \$1.22
00002	FURNISH AND DELIVER REFLECTIVE Material Group: 80149 - sign material, reflective (see 550-45 for reflective sheeting for other than signs) Agency: SC Dept of Transportation Notes for Item 00002: "FURNISH AND DELIVER REFLECTIVE SHEETING TYPE IX, CLASS I" REFLECTIVE SHEETING	Unit Price: \$2.65	Total Price: \$2.65
00003	FURNISH AND DELIVER REFLECTIVE Material Group: 80149 - sign material, reflective (see 550-45 for reflective sheeting for other than signs) Agency: SC Dept of Transportation Notes for Item 00003: "FURNISH AND DELIVER REFLECTIVE SHEETING TYPE IX CLASS I, FLUORESCENT YELLOW AND	Unit Price: \$2.47	Total Price: \$2.47

FLUORESCENT YELLOW-GREEN REFLECTIVE SHEETING

00004 FURNISH AND DELIVER REFLECTIVE Unit Price: \$2.47 Total Price: \$2.47

Material Group: 80149 - sign material, reflective (see 550-45 for reflective sheeting for other than signs)

Agency: SC Dept of Transportation

Notes for Item 00004: "FURNISH AND DELIVER REFLECTIVE SHEETING TYPE IX, CLASS 1 FLUORESCENT O"RANGE OMNI VIEW #W-9514 REFLECTIVE SHEETING

00010 ELECTROCUT FILM Unit Price: \$1.10 Total Price: \$1.10

Material Group: 80149 - sign material, reflective (see 550-45 for reflective sheeting for other than signs)

Agency: SC Dept of Transportation

00020 TRANSFER TAPE Unit Price: \$0.10 Total Price: \$0.10

Material Group: 80149 - sign material, reflective (see 550-45 for reflective sheeting for other than signs)

Agency: SC Dept of Transportation

00030 NON-REFLECTIVE FILM Unit Price: \$0.70 Total Price: \$0.70

Material Group: 80149 - sign material, reflective (see 550-45 for reflective sheeting for other than signs)

Agency: SC Dept of Transportation

00040 WASHERS Unit Price: \$0.05 Total Price: \$0.05

Material Group: 80149 - sign material, reflective (see 550-45 for reflective sheeting for other than signs)

Agency: SC Dept of Transportation

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Aluminum Blank Pricing



SC Budget and Control Board

PROCUREMENT SERVICES

Contract 5000012394

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Validity Start 12/16/2011

Validity End 12/15/2016

Target Value \$5,000,000.00

FEIN 63-0513868

Bid Invitation

Contract Notes

Vendor 7000177657

Vendor Address VULCAN ALUMINUM
PO Box 1850

FOLEY AL 36536-1850

District BALDWIN

Telephone (888) 846-2745

Minority Status Not Applicable

E-mail vulcan1@vulcaninc.com

Fax Number (251) 943-7590

Vendor Contacts

One Contact found.

Contact Name	Function	Phone	E-mail
KONIAR, J. TODD	Primary Contact	(888) 846-2745	mailto:vulcan1%40vulcaninc.com

Contract Items

57 Items found, displaying all Items.

Item Pricing

00010	W-12",H-6",T-0.08,12X6, AREA 0.50 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00010: ALUMINUM SIGN BLANK, W-12", H-6", T-0.080, SIZE 12X6, AREA 0.50	Unit Price: \$1.34	Total Price: \$218.42
00020	W-12",H-18",T-0.080,12X18,AREA 1.50 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00020: ALUMINUM SIGN BLANK, W-12", H-18", T-0.080, SIZE 12X18, AREA 1.50	Unit Price: \$3.30	Total Price: \$957.00
00030	W-12", H-36", T-0.080, 12X36, AREA 3.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00030: ALUMINUM SIGN BLANK, W-12", H-36", T-0.080, SIZE 12X36, AREA 3.00	Unit Price: \$6.58	Total Price: \$18,674.04
00040	H-18", T-0.080, SIZE 18X18, AREA 2.25 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00040: W-18", H-18", T-0.080, SIZE 18X18, AREA 2.25	Unit Price: \$4.94	Total Price: \$17,354.22
00050	W-18", H-24", T-0.080, 18X24, AREA 3.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00050: ALUMINUM SIGN BLANK, W-18", H-24", T-0.080, SIZE 18X24, AREA 3.00	Unit Price: \$6.50	Total Price: \$5,174.00
00060	W-20", H-4", T-0.080, 20X4, AREA 0.56 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)	Unit Price: \$1.51	Total Price: \$822.95

Agency: SC Dept of Transportation

Notes for Item 00060: ALUMINUM SIGN BLANK, W-20", H-4", T-0.080, SIZE 20X4, AREA 0.56

00070	W-21", H-15", T-0.080, 21X15, AREA 2.19 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00070: ALUMINUM SIGN BLANK, W-21", H-15", T-0.080, SIZE 21X15, AREA 2.19	Unit Price: \$4.83	Total Price: \$7,293.30
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00080	W-24", H-4", T-0.080, 24X4, AREA 0.67 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00080: ALUMINUM SIGN BLANK, W-24", H-4", T-0.080, SIZE 24X4, AREA 0.67	Unit Price: \$1.74	Total Price: \$718.62
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00090	W-24", H-8", T-0.080, SIZE 24X8 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00090: ALUMINUM SIGN BLANK, W-24", H-8", T-0.080, SIZE 24X8	Unit Price: \$3.03	Total Price: \$757.50
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00100	W-24", H-10", T-0.080, 24X10, AREA 1.67 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00100: ALUMINUM SIGN BLANK, W-24", H-10", T-0.080, SIZE 24X10, AREA 1.67	Unit Price: \$3.75	Total Price: \$213.75
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00110	W-24", H-12", T-0.080, 24X12, AREA 2.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00110: ALUMINUM SIGN BLANK, W-24", H-12", T-0.080, SIZE 24X12, AREA 2.00	Unit Price: \$4.40	Total Price: \$3,515.60
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00120	W-24", H-18", T-0.080, 24X18, AREA 3.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00120: ALUMINUM SIGN BLANK, W-24", H-18", T-0.080, SIZE 24X18, AREA 3.00	Unit Price: \$6.50	Total Price: \$409.50
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00130	W-24", H-24", T-0.080, 24X24, AREA 4.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00130: ALUMINUM SIGN BLANK, W-24", H-24", T-0.080, SIZE 24X24, AREA 4.00	Unit Price: \$8.61	Total Price: \$13,319.67
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00140 W-24", H-30", T-0.080, 24X30, AREA 5.00 Unit Price: \$10.73 Total Price: \$70,485.37

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00140: ALUMINUM SIGN BLANK, W-24", H-30", T-0.080, SIZE 24X30, AREA 5.00

00150 W-24", H-36", T-0.080, 24X36, AREA 6.00 Unit Price: \$12.94 Total Price: \$1,410.46

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00150: ALUMINUM SIGN BLANK, W-24", H-36", T-0.080, SIZE 24X36, AREA 6.00

00160 W-24", H-60", T-0.080, 24X60, AREA 10.00 Unit Price: \$21.57 Total Price: \$1,315.77

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00160: ALUMINUM SIGN BLANK, W-24", H-60", T-0.080, SIZE 24X60, AREA 10.00

00170 W-30", H-18", T-0.080, 30X18, AREA 3.75 Unit Price: \$8.16 Total Price: \$620.16

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00170: ALUMINUM SIGN BLANK, W-30", H-18", T-0.080, SIZE 30X18, AREA 3.75

00180 W-30", H-24", T-0.080, 30X24, AREA 5.00 Unit Price: \$10.73 Total Price: \$13,036.95

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00180: ALUMINUM SIGN BLANK, W-30", H-24", T-0.080, SIZE 30X24, AREA 5.00

00190 W-30", H-30", T-0.080, 30X30, AREA 6.25 Unit Price: \$13.39 Total Price: \$233,749.23

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00190: ALUMINUM SIGN BLANK, W-30", H-30", T-0.080, SIZE 30X30, AREA 6.25

00200 W-30", H-30", T-0.080, SIZE 30" OCTAGON Unit Price: \$12.60 Total Price: \$1,260.00

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00200: ALUMINUM SIGN BLANK, W-30", H-30", T-0.080, SIZE 30" OCTAGON

00210 W-30", H-36", T-0.080, 30X36, AREA 7.50 Unit Price: \$16.08 Total Price: \$4,325.52

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

	Agency: SC Dept of Transportation Notes for Item 00210: ALUMINUM SIGN BLANK, W-30", H-36", T-0.080, SIZE 30X36, AREA 7.50		
00220	W-33", H-9", T-0.080, 33X9 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00220: ALUMINUM SIGN BLANK, W-33", H-9", T-0.080, SIZE 33X9	Unit Price: \$4.69	Total Price: \$469.00
00230	W-36", H-12", T-0.080, 36X12, AREA 3.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00230: ALUMINUM SIGN BLANK, W-36", H-12", T-0.080, SIZE 36X12, AREA 3.00	Unit Price: \$6.58	Total Price: \$3,619.00
00240	W-36", H-18", T-0.080, 36X18, AREA 4.50 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00240: ALUMINUM SIGN BLANK, W-36", H-18", T-0.080, SIZE 36X18, AREA 4.50	Unit Price: \$9.75	Total Price: \$1,891.50
00250	W-36", H-24", T-0.080, 36X24, AREA 6.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00250: ALUMINUM SIGN BLANK, W-36", H-24", T-0.080, SIZE 36X24, AREA 6.00	Unit Price: \$12.94	Total Price: \$3,882.00
00260	W-36", H-30", T-0.080, 36X30, AREA 7.5 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00260: ALUMINUM SIGN BLANK, W-36", H-30", T-0.080, SIZE 36X30, AREA 7.50	Unit Price: \$16.17	Total Price: \$1,536.15
00270	W-36", H-36", T-0.080, 36X36, AREA 9.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00270: ALUMINUM SIGN BLANK, W-36", H-36", T-0.080, SIZE 36X36, AREA 9.00	Unit Price: \$19.31	Total Price: \$80,619.25
00280	W-36", H-36", T-0.080, 36" PENTAGON Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00280: ALUMINUM SIGN BLANK, W-36", H-36",	Unit Price: \$17.89	Total Price: \$1,789.00

T-0.080, 36" PENTAGON

00290	W-36", H-36", T-0.080, 36" OCTAGON Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00290: ALUMINUM SIGN BLANK, W-36", H-36", T-0.080, 36" OCTAGON	Unit Price: \$18.21	Total Price: \$1,621.00
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00300	W-36",H-36",T-0.080,36" CIRCLE,AREA14.14 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00300: ALUMINUM SIGN BLANK, W-36", H-36", T-0.080, 36" CIRCLE, AREA 14.14	Unit Price: \$18.07	Total Price: \$8,095.36
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00310	W-36",H-36",T-0.080,36" TRIANGLE, A-4.50 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00310: ALUMINUM SIGN BLANK, W-36", H-36", T-0.080, 36" TRIANGLE, AREA 4.50	Unit Price: \$9.43	Total Price: \$1,631.39
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00320	W-36", H-48", T-0.080, 36X48, AREA 12.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00320: ALUMINUM SIGN BLANK, W-36", H-48", T-0.080, SIZE 36X48, AREA 12.00	Unit Price: \$25.89	Total Price: \$5,022.66
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00330	W-48", H-9", T-0.100, 48X9, AREA 3.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00330: ALUMINUM SIGN BLANK, W-48", H-9", T-0.100, SIZE 48X9, AREA 3.00	Unit Price: \$8.16	Total Price: \$3,859.68
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00340	W-48", H-12", T-0.100, 48X12, AREA 4.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00340: ALUMINUM SIGN BLANK, W-48", H-12", T-0.100, SIZE 48X12, AREA 4.00	Unit Price: \$10.82	Total Price: \$562.64
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00350	W-48", H-18", T-0.100, 48X18, AREA 6.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00350: ALUMINUM SIGN BLANK, W-48", H-18", T-0.100, SIZE 48X18, AREA 6.00	Unit Price: \$16.13	Total Price: \$9,452.18
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00360	W-48", H-24", T-0.100, 48X24, AREA 8.00	Unit Price: \$21.42	Total Price: \$18,421.20
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Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00360: ALUMINUM SIGN BLANK, W-48", H-24", T-0.100, SIZE 48X24, AREA 8.00

00370	W-48", H-36", T-0.100, 48X36, AREA 12.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00370: ALUMINUM SIGN BLANK, W-48", H-36", T-0.100, SIZE 48X36, AREA 12.00	Unit Price: \$32.05	Total Price: \$14,871.20
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00380	W-48", H-48", T-0.100, 48X48, AREA 16.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00380: ALUMINUM SIGN BLANK, W-48", H-48", T-0.100, SIZE 48X48, AREA 16.00	Unit Price: \$42.70	Total Price: \$17,549.70
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00390	W-48", H-48", T-0.100, 48" OCTAGON Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00390: ALUMINUM SIGN BLANK, W-48", H-48", T-0.100, 48" OCTAGON	Unit Price: \$40.20	Total Price: \$4,020.00
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00400	W-54", H-18", T-0.100, 54X18 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00400: ALUMINUM SIGN BLANK, W-54", H-18", T-0.100, SIZE 54X18	Unit Price: \$18.13	Total Price: \$1,813.00
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00410	W-60", H-12", T-0.100, 60X12, AREA 5.0 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00410: ALUMINUM SIGN BLANK, W-60", H-12", T-0.100, SIZE 60X12, AREA 5.0	Unit Price: \$13.46	Total Price: \$713.38
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00420	W-60", H-16", T-0.100, 60X16 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00420: ALUMINUM SIGN BLANK, W-60", H-16", T-0.100, SIZE 60X16	Unit Price: \$17.86	Total Price: \$1,786.00
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00430	W-60", H-18", T-0.100, 60X18, AREA 7.50 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation	Unit Price: \$20.08	Total Price: \$863.44
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	Notes for Item 00430: ALUMINUM SIGN BLANK, W-60", H-18", T-0.100, SIZE 60X18, AREA 7.50		
00440	W-60", H-24", T-0.100, 60X24, AREA 10.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00440: ALUMINUM SIGN BLANK, W-60", H-24", T-0.100, SIZE 60X24, AREA 10.00	Unit Price: \$26.73	Total Price: \$2,566.08
00450	W-72", H-8", T-0.100, 72X8, AREA 4.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00450: ALUMINUM SIGN BLANK, W-72", H-8", T-0.100, SIZE 72X8, AREA 4.00	Unit Price: \$11.20	Total Price: \$1,680.00
00460	W-72", H-12", T-0.100, 72X12, AREA 6.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00460: ALUMINUM SIGN BLANK, W-72", H-12", T-0.100, SIZE 72X12, AREA 6.00	Unit Price: \$16.22	Total Price: \$1,167.84
00470	W-72", H-16", T-0.100, 72X16 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation	Unit Price: \$21.52	Total Price: \$2,152.00
00480	W-72", H-24", T-0.100, 72X24, AREA 12.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00480: ALUMINUM SIGN BLANK, W-72", H-24", T-0.100, SIZE 72X24, AREA 12.00	Unit Price: \$32.28	Total Price: \$3,034.32
00490	W-72", H-36", T-0.100, 72X36, AREA 18.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00490: ALUMINUM SIGN BLANK, W-72", H-36", T-0.100, SIZE 72X36, AREA 18.00	Unit Price: \$48.18	Total Price: \$2,119.92
00500	W-72", H-48", T-0.100, 72X48, AREA 24.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00500: ALUMINUM SIGN BLANK, W-72", H-48", T-0.100, SIZE 72X48, AREA 24.00	Unit Price: \$64.35	Total Price: \$3,346.20
00510	W-84", H-16", T-0.100, 84X16 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and	Unit Price: \$25.32	Total Price: \$2,532.00

	97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00510: ALUMINUM SIGN BLANK, W-84", H-16", T-0.100, SIZE 84X16		
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00520 W-84", H-24", T-0.100, 84X24, AREA 14.00 **Unit Price:** \$39.44 **Total Price:** \$2,800.24

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00520: ALUMINUM SIGN BLANK, W-84", H-24", T-0.100, SIZE 84X24, AREA 14.00

00530	W-84", H-36", T-0.100, 84X36 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00530: ALUMINUM SIGN BLANK, W-84", H-36", T-0.100, SIZE 84X36	Unit Price: \$56.29	Total Price: \$5,629.00
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00540 W-84", H-48", T-0.100, 84X48 **Unit Price:** \$76.24 **Total Price:** \$7,624.00

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00540: ALUMINUM SIGN BLANK, W-84", H-48", T-0.100, SIZE 84X48

00550	W-96", H-24", T-0.100, 96X24, AREA 16.00 Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00550: ALUMINUM SIGN BLANK, W-96", H-24", T-0.100, SIZE 96X24, AREA 16.00	Unit Price: \$44.69	Total Price: \$1,966.36
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00560 W-96", H-36", T-0.100, 96X36 **Unit Price:** \$63.50 **Total Price:** \$6,350.00

Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks)

Agency: SC Dept of Transportation

Notes for Item 00560: ALUMINUM SIGN BLANK, W-96", H-36", T-0.100, SIZE 96X36

00570	W-96", H-48", T-0.100, 96X48 SHEET Material Group: 80109 - blanks, sign, metal (see 801-71, 89, and 97 for other sign blanks) Agency: SC Dept of Transportation Notes for Item 00570: ALUMINUM SIGN BLANK, W-96", H-48", T-0.100, 96X48 SHEET	Unit Price: \$86.80	Total Price: \$8,680.00
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Extruded Panel Pricing

Jim,

I am assuming you are talking about the 12" Extruded Panel. A best guess delivered price would be **around \$6.75 / linear foot** for ½ a truckload (15-20,000#). Pricing will ultimately depend on how much material you would buy at one time. This price would include alodizing the panels and all freight charges.

Lead time would be 30-45 days depending on the lead times from the extruder.

Todd Koniar | *Sales Manager*



Toll Free | 888.846.2745

Cell | 251.424.2559

Fax | 251.943.7590

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From: Johannemann, James A. [<mailto:JohannemJA@dot.state.sc.us>]

Sent: Tuesday, January 22, 2013 2:23 PM

To: Todd Koniar

Subject: extruded panels

Todd,

[REDACTED] at the central sign shop gave your contact information. I am doing a study to investigate the feasibility of outsourcing sign production. To complete my study I need to know what it would cost us to purchase extruded panels today. I am wondering about the cost of extruded panels for making the large interstate signs. I would appreciate it if you could give me some prices. I imagine the cost is dependent on order size and perhaps panel length so, just a good ball park estimate would be fine.

Thanks,

Jim

Jim Johannemann

Asst. State Maint. Engineer

South Carolina Dept. of Transportation

955 Park Street Room 323

P.O. Box 191

Columbia, SC 29202

803-737-4481

803-737-1290

803-737-2850 Fax

johannemja@scdot.org

Prison Industries' Pricing

2012

December 4,

James A. Johannemann
S.C. Department Transportation
Corrections
Columbia, SC 20201

Larry Thompson
S.C. Department of

Broad River C.I. Sign Shop
4460 Broad River Road
Columbia, SC 29210
Phone: 896-2131
Fax: 896-2239

Dear Mr. Johannemann;

The following will confirm the new pricing schedule for signs currently manufactured by the South Carolina Department of Corrections for the South Carolina Department of Transportation. Please note that we are also including pricing for the "D" series signs. We reverse pull D-series signs which requires the use of Amba film in this process. These signs will be priced in the same manner as those below. The only exception is a film cost added to the sign price. The film will not be up-charged; we are simply recouping our cost of this material. Please note that these are 2005 prices; this reflects the 6% decrease given to SCDOT on August 12, 2010.

.080 Aluminum + #3930 Prismatic Sheeting	\$ 4.52 per square foot
.100 Aluminum + #3930 Prismatic Sheeting	\$ 5.58 per square foot
.080 Aluminum + #3990 Diamond Grade Sheeting	\$ 9.16 per square foot
.100 Aluminum + #3990 Diamond Grade Sheeting	\$10.22 per square foot
.080 Aluminum + #3983 Yel./Green Fluor. Sheeting	\$ 9.92 per square foot
.100 Aluminum + #3983 Yel./Green Fluor. Sheeting	\$10.98 per square foot
.080 Aluminum + #3924 Fluor. Orange Sheeting	\$ 7.37 per square foot
.100 Aluminum + #3924 Fluor. Orange Sheeting	\$ 8.43 per square foot

"D" series signs will be priced per square foot as follows:

080 Aluminum + #3930 Prismatic Sheeting	\$ 6.62 per square foot
.100 Aluminum + #3930 Prismatic Sheeting	\$ 7.68 per square foot

Also, the following signs require the use of pre-cut blanks. The aluminum cost is actually a blank cost, as opposed to the sign being priced per square foot of aluminum.

R1-1-30	Stop	\$28.75
R1-1-36	Stop	\$43.43
R1-1-48	Stop	\$90.86
R1-2-36	Yield	\$30.56
R1-2-48	Yield	\$66.32
M1-1-24	Interstate Shield	\$24.10
M1-1-30	Interstate Shield	\$28.26
M1-1- 36	Interstate Shield	\$49.82
S1-1-30	School Crossing	\$63.81
S1-1-36	School Crossing	\$91.93
36" Circle	RR Xing Advance Warning	\$37.55

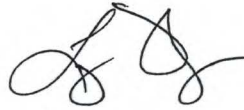
The following are 2-part signs that require the application of the base sheeting, as well as a screened decal defining the sign's purpose. Consequently, because of the extra scotch-lite used for these signs, the prices will be higher than a sign of equivalent size.

W3-1-30	Stop Ahead	\$31.61
W3-1-36	Stop Ahead	\$45.56
W3-2-30	Yield Ahead	\$36.69
W3-2-36	Yield Ahead	\$51.25
W3-3-30	Signal Ahead	\$28.25
W3—3-36	Signal Ahead	\$40.68
W3-5-36	Speed Limit XX Ahead	\$46.49
W3-1-48	Stop Ahead	\$97.76
W3-5-48	Speed Limit XX Ahead	\$99.03

Refurbished signs, which require recovering and re-screening, were not affected by this price decrease.

If you have any questions or comments, please contact me at the above numbers.

Thank You,



Larry Thompson

Informal Vendor Quotes

Hand Laid Signs

I would use \$6.83 a sq ft or \$82.05 as a good number I used .100 virgin aluminum with hi intensity background and hi intensity copy. There is .080 aluminum and .125 so I went in the middle.

Of course if we used refurb metal it would be a big difference.

As for the stop signs under an agreement with the state all quantities would be the same, we would not raise the price for one, we base it off of the annual number and hope for the best!!

Have a great day!

On Jan 31, 2013, at 3:49 PM, "Johannemann, James A." <JohannemJA@dot.state.sc.us> wrote:
Flat stock

From:

Sent: Thursday, January 31, 2013 3:48 PM

To: Johannemann, James A.

Subject: RE: Sheeting Your Rigid Sign Blanks

is the guide sign made out of flat stock or extruded panels

Have a great day!

----- Original message -----

From: "Johannemann, James A." <JohannemJA@dot.state.sc.us>

Date: 01/31/2013 3:36 PM (GMT-05:00)

To:

Subject: RE: Sheeting Your Rigid Sign Blanks

Sorry to keep bothering you with these cost questions but I have another one. Could you give me an informal quote/estimate of what it would cost for you to produce guide signs. I am comparing our costs to the private sector's price for a 24" X 72" two line green back ground guide sign. Since these signs are unique the quantity would be one but, there would be many if we contracted their production. I hope you can help with this.

Also you quoted/estimated the cost per square foot for 1000 stop signs. How much different would that per square foot price be if it were 100 signs?

Jim Johannemann

Asst. State Maintenance Engineer

SCDOT

803-737-4481

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Standard Sign Pricing

From: Johannemann, James A. [<mailto:JohannemJA@dot.state.sc.us>]

Sent: Thursday, September 13, 2012 2:24 PM

To: Subject: RE: Sheeting Your Rigid Sign Blanks

On your aluminum we would use your sheeting, machine laminate and trim then print a single color with any MUTCD standard legend.

Your price would be 0.36 cents a square foot added to the current contract price.

Have a great day!

Vice President of Sales

This message (including any attachments) contains confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, you should delete this message. Any disclosure, copying, or distribution of this message, or the taking of any action based on it, is strictly prohibited.

Unfinished Extruded Aluminum Panels

Jim,

See the info below. It says for overhead, but the prices would be valid for any extruded panels. If anything, it may be a little cheaper than the prices quoted. Wayne is supposed to be gathering some additional information.

From

Sent: Friday, January 18, 2013 2:22 PM

To:

Subject: Fwd: FW: Eddins Electric/

Nick,

Per your request.

Charlie

From: To: CC:

Sent: 18-Jan-13 13:45:52 Eastern Standard Time

Subj: FW: Eddins Electric/Charlie Leath

FYI

Territory Manager

From:

Sent: Friday, January 18, 2013 1:45 PM

To:

Subject: RE: Eddins Electric/

From:

Sent: Friday, January 18, 2013 11:20 AM

To:

Subject: Eddins Electric/

Bobby...need SF pricing for SCDOT Overhead signs only for the following:

LOW SF Quantity-50 \$18.76 sq ft, delivered

MEDIUM SF Quantity-1500 \$17.89 sq ft delivered

LARGE SF Quantity-Trailer Load \$17.00 sq ft delivered

Thanks...Wayne